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Surgical Resection for Oral Tongue Cancer Pulmonary Metastases, a Good Choice?

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Background: The lung is the most common distant metastasis site from oral tongue cancer (OTC). However, there have been no reports on surgical resection results for pulmonary OTC metastases. The aim of this study was to evaluate surgical resection for OTC pulmonary metastases efficacy.

Methods: Between 1977 and 2003, 23 OTC patients who developed 1 to 3 pulmonary metastases underwent metastasectomy. The clinicopathologic features and long-term outcomes were examined.

Results: The 14 men and 9 women had a median age at the time of pulmonary metastasectomy of 56 (range; 28-72 years). All 23 patients had advanced squamous cell OTC with regional lymph node involvement or subsequent regional lymph node metastasis. The median tumor-free interval after the initial OTC treatment was 17 months (range: 1-165 months). Five patients had pneumonectomy, three bilobectomy, 13 lobectomy, and two wedge resection. Two patients underwent a second pulmonary metastasectomy. One patient continues to survive, without recurrence at 229 months right now. Twenty-two patients developed systemic metastases. The interval to systemic metastasis recurrence after pulmonary resection ranged from 1 to 17 months (median, 3.5 months) and 21 died of OTC at 9.5 months median (range: 1-26 months) after metastasectomy. One patient was alive with disease at 24 months after metastasectomy but was lost to follow-up.

Conclusions: Most patients who had OTC pulmonary metastasectomy died of the disease within two years. Even for patients with a solitary metastasis, surgical resection for OTC pulmonary metastases is not a recommended treatment option.

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Soluble Mesothelin related Proteins in Patients with Malignant Pleural Mesothelioma in Comparison to Asbestos Diseases and Lung Cancer

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Background: Soluble mesothelin related proteins (SMRP) have been reported as being potential markers for the detection, staging and monitoring of treatment of malignant pleural mesothelioma (MPM). In order to evaluate the diagnostic accuracy, i.e. sensitivity and specificity of a new ELISA test, we investigated SMRP serum concentrations in patients with MPM, primary lung cancer and benign asbestos diseases, with a particular focus on differential diagnosis.

Methods: The study population consisted of 100 newly diagnosed MPM patients. They were compared to 75 patients with severe forms of asbestosis and 139 patients suffering from untreated primary lung cancer. In addition, 29 MPM patient with tumor relapse or progression after initial therapy were included. SMRP serum concentrations were measured by using the newly developed ELISA kit MesomarkTM (Fujirebio Diagnostics, Malvern, USA distributed by CIS bio GmbH, Berlin, Germany). Statistical analyses (Mann-Whitney U-Test, ROC analysis) were performed with SPSS 14.0 (Chicago, Illinois, USA).

Results: SMRP concentrations were found to be significantly higher in patients suffering from MPM in comparison to benign asbestos diseases ($p < 0.001$) or primary lung cancer ($p < 0.001$). The median values (range) were 1.4 (0.2-31.0) nM, 0.9 (0.1-3.3) nM and 0.8 (0-6.0) nM respectively. The highest SMRP concentrations were found in patients with the epithelial subtype of MPM. However, this was not significantly different from the serum concentrations of the sarcomatoid and the biphasic subtypes. SMRP tended to increase with the tumour stages of MPM.

At a cutoff value of 1.6 nM SMRP reached a sensitivity of 42% with a specificity of 95% for benign asbestos diseases. Youden index revealed an optimal cutoff value of 1.35 nM resulting in a sensitivity of 53% and a specificity of 88%. However, SMRP were also increased in 12.9% (cut-off 1.6 nM) or 19.9% (cutoff 1.35 nM) of lung cancer patients. Receiver operator characteristics (ROC) curves resulted in an area under curve (AUC) of 0.72 (95% CI: 0.66-0.79) for the discrimination between MPM and non-MPM patients (lung cancer and asbestosis). In the 29 MPM patients with relapse/progression after an initial therapy, SMRP levels were found to be significantly higher (Median: 4.2 (0.2-51.0) nM; $p < 0.001$) compared to the 100 MPM patients without prior treatment.

Conclusion: SMRP serum concentration might be an useful measure in the diagnostic characterisation of MPM and for the differentiation between MPM, benign asbestosis and lung cancer patients. In addition, our results indicate that SMRP might be useful in treatment monitoring and follow-up.

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Predictors of "long term" survival following surgical treatment of malignant pleural effusion

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Objective: To investigate prognostic factors following surgical palliation of malignant pleural effusion (MPE).

Method: We reviewed 280 consecutive patients [109 male, median age 60 years (range 26 - 89)] undergoing 312 surgical procedures for palliation of MPE over 72 months. The commonest malignancies were breast (29%), malignant pleural mesothelioma (MPM) (25%), lung (12%), ovary (9%) and adenocarcinoma of unknown primary (5%). There

were 198 thorascopic talc pleurodesis, 39 pleuroperitoneal shunts, 37 pleurodesis via an intercostal drain, 28 pleural biopsies alone and 9 long term drains. Referring physicians provided survival data. Factors significance were examined with the log rank test (Kapleyn-Meir), those significant entered a Cox logistic multivariate regression analysis.

Results: Median follow up 1288 days (range 173-2329) 100% complete. Median post-operative survival was 211 days (95%CI 169-253). Survival was not significantly different by procedure performed or tumour type. MPM had a median survival of 297 days (95%CI 236-358). Univariate analysis: Pre-operative leucocytosis, hypoxaemia, raised alanine transaminase, hypoalbuminaemia were associated with reduced post-operative survival. Multivariate analysis: leucocytosis ($p<0.0001$), hypoxaemia ($p=0.014$) hypoalbuminaemia ($p<0.0001$) maintained significance.

		n	Median Survival (Days)	95% C.I.	p
WCC	>12	53	68	36 - 100	<0.00001
	<12	254	259	207 - 311	
pO2	>9.5	98	317	220 - 414	0.0015
	<9.5	131	130	75 - 185	
Albumin	>35	104	667	449 - 885	<0.000001
	<35	202	114	87 - 141	

Conclusions: Surgical palliation can be individualised depending upon prognosis. Survival following palliation of MPM is the benchmark for the results of radical surgery.

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Primary tracheal tumours

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Background: Primitive tracheal tumors are extremely infrequent lesions which correspond to 2% of all upper airway neoplastic pathologies and to 0.01% of all malignant lung diseases. The objective is to evaluate the survival of these patients according to their histological type, length of resection and characteristics of the tracheal margins.

Materials and Methods: retrospective study of a descriptive type analyzed over ten year-periods. An examination was conducted of all patients diagnosed and treated for a primitive tracheal tumor at "Maria Ferrer" Respiratory Rehabilitation Hospital from January 1971 to May 2006. Out of 48 patients, ranging from 9 to 79 years of age, 29 were female and 19 were male.

Results: The most frequent tumor was adenocystic carcinoma, followed in frequency by epidermoid carcinoma. The duration of symptoms until diagnosis was 10 months and 33% of these patients were wrongly treated for asthma. Deobstruction, through rigid bronchoscopy, was successful as a bridge towards surgery, and it was reserved for use as an exclusive treatment for benign tumors or with a palliative criterion in non-resectable tumors. The lowest one-third was the most affected tracheal segment.

Conclusions: The best results in this group of patients are related to resections which were less than 6 cm long and had negative margins.

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Evaluation of tymphic tumors treated with postoperative radiotherapy

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Background: To retrospectively evaluate the role of postoperative radiotherapy (RT) in the management of thymic tumors (TT).

Methods: From 1995 to 2004, 10 pts (4 females, 6 males) with histologically proven TT (4 tymoma, 6 tymphic carcinoma) were treated at our department. The median age of the pts was 42 years (19-73 yrs). According to Masoaka staging system, there was 1 stage 1, 3 stage 2, 4 stage 3, 1 stage 4-A, 1 stage 4-B pts. Eight pts were treated with total resection and postoperative RT with the median dose of 5940 cGy (5040-6000 cGy) in 28-30 fractions. One case who was treated with curative RT, only received 1620 cGy and 1 cycles of chemotherapy (CT) and died in three months. One case who had stage 4-B tymphic carcinoma was treated with total exicision and metastasectomy and chemotherapy. One case who has stage 1 tymoma was treated with RT due to high mitoses (6/10) and high proliferative index (Ki-67: 104/1000). The histological subtype was in most of cases squamous cell carcinoma.

Results: All cases were evaluated at January 2007. The median follow-up time was 48 months (3-84 months). Five pts were living at the evaluating time. There were 6 complete surgical resections with postoperative RT (2 of these also were received CT-median 6 cycles), 2 incomplete resections followed by chemoradiotherapy (paclitaxel 60-70 mg/m²/weekly), 1 complete resection and metastasectomy with CT (This pt were administered second-line CT and RT), 1 with curative RT and CT as the initial treatment. Prior to surgery 1 pt had Myastenia Gravis. The median and 2-4 year overall survival rates were 48 months (3-84 months), %74, %47, respectively. The median overall survival was 34 months (28-49 months) and 48 months (3-84 months) for pts with tymoma and tymphic carcinoma, respectively. Recurrences were seen at mediastinum, and pericardium at the median 47 months (12-54 months) for 4 pts (4/8, 50%) (2 complete, and 2 incomplete resection, and 2 tymphic carcinoma and 2 tymoma). Local control rate was 50% in the median follow-up time. After the recurrences, pts were treated with chemotherapy, surgery and reirradiation with 3960 cGy. The mean and 2-4 year disease-free survival rates were 47 months (12-62 months), 75%, 62.5% respectively excluding the pts who have metastatic or died at treatment.

Conclusion: The use of surgery and postoperative RT lead to good control of residual disease and high overall survival rates.

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Adenoid Cystic Carcinoma of the Trachea: Case Report

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Background: Primary malignant tumors of the trachea are very rare. Of these, 50% were squamous cell carcinomas (SCC) and 20% to 35% were adenoid cystic carcinomas (ACC). The most frequent site of tumour is the lower third of the trachea. Symptoms often mimic asthma